

Domain	BRICKLAYING	Unit ID: 39
Title:	Plan, set out and construct multi thickness walls and piers	
Level: 4		Credits: 8

Purpose

This unit standard specifies the competencies required to construct multi-thickness walls and piers for different types and styles of buildings. It includes the planning, preparation, set out and construction of the walls and piers. This unit standard is intended for those who as bricklayers and plasterers.

Special Notes

1. Entry information

Prerequisite:

- Unit 3 - *Apply safety rules and regulations in bricklaying operations* or demonstrated equivalent knowledge and skills.

2. To demonstrate competence, at a minimum, requires evidence of constructing three brick walls including one English bond, one Flemish bond and one other type with each to be a minimum of 330mm thick and 600mm high and contain at least one return corner; and construct an isolated pier in brick using an appropriate bond of a minimum 450mm x 450mm. Perform these tasks ensuring correct identification of requirements and finishing of the tasks, correct selection and use of appropriate processes, tools and equipment and completing all work to specification.

3. The unit standard requires the laying of bricks to construct multi-thickness walls and piers in buildings and structures. Multi-thickness brick construction may incorporate but is not limited to laying of bricks to a specified bond to provide a designed structural stability, openings, fences, retaining walls, walls, columns and attached piers, laying of bricks to a designed brick featured face, straight, square and plumb brick/block as specified, wall ties and lateral support systems as specified and reinforcement as specified.

4. Assessment evidence may be collected from a real workplace or a simulated real workplace or an appropriate simulated environment in which bricklaying operations are carried out.

5. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' guidelines and instructions.

6. '*Specifications*' refers to any, or all of the following: manufacturers' specifications and recommendations, site and workplace specific requirements.

7. Regulations and legislation relevant to this unit standard include the following:

- Labour Act No 6, 1992
- Occupational Health and Safety Regulations No.18, 1997 and all subsequent amendments.

Quality Assurance Requirements

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority on www.nta.com.na

Elements and Performance Criteria

Element 1: Plan and prepare for work

Range

Planning and preparation is to include but is not limited to worksite inspection, equipment defect identification, assessment of conditions and hazards and determination of work requirements.

Tools and equipment are to include but are not limited to wheelbarrows, concrete mixers, buckets, hoses, shovels, measuring tapes/rules, plumb rules, jointing tools, hammers (club, scutch), bolsters, spirit levels, dumpy levels, trowels, mortar boards, straight edges, profiles, line blocks, line pins, builders lines, masonry saws, mason's squares, builder's squares, pointing and jointing tools. Tools and equipment may also include brick barrows and small petrol/diesel mixers.

Materials are to include but are not limited to bricks, blocks, reinforcing materials, aggregates, cement, lime and waterproofing materials.

Performance Criteria

- 1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, confirmed and applied.
- 1.2 Safety requirements are followed in accordance with safety plans and policies.
- 1.3 Sign and barricade requirements are identified and implemented.
- 1.4 Plant, tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement.
- 1.5 Material quantity requirements are calculated in accordance with plans and/or specifications.
- 1.6 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.
- 1.7 Environmental protection requirements for the project are identified and applied in line with environmental plans and regulatory obligations.

Element 2: Set out brickwork

Performance Criteria

- 2.1 Work platform is erected in accordance with regulatory and workplace requirements.
- 2.2 Location and structural details of brickwork are determined from drawings and specifications.
- 2.3 Set out area is located and footing is checked for conformity to dimensions and location as per job drawings, specifications and standards.
- 2.4 Brickwork is set out to location and dimensions in drawings and specifications.

Element 3: Construct walls and attached piers

Range

Bond types for brickwork are to include but are not limited to English, Flemish, English garden wall stretcher.

Performance Criteria

- 3.1 Mortar is mixed and bricks are laid to set out for base and specified bond in accordance with specifications and standards.
- 3.2 Multi-thickness wall is constructed maintaining bond and completed to job specifications and standards.
- 3.3 Attached piers are bonded to wall to job specifications.
- 3.4 Walls are straight and true in plumb line and level within standard tolerances.
- 3.5 Damp proof courses are built to specifications and standards.
- 3.6 Openings are constructed and lintels are installed to job specifications and standards.
- 3.7 Tie down and lateral support systems for ceiling/roof structures are installed to walls in accordance with plans, specifications, codes and standards.

Element 4: Construct isolated piers

Performance Criteria

- 4.1 Bricks are laid to set out and specified bond.
- 4.2 Piers are constructed to line, level and plumb and bond is maintained to job specifications.

Element 5: Finish joints

Performance Criteria

- 5.1 Excess mortar is removed from brickwork surfaces and cavities are cleaned free of mortar and debris in accordance with manufacturers' recommendations, job specifications, standards and codes.
- 5.2 Joints of laid brickwork are raked or ruled to correct profile and depth in accordance with job specifications.
- 5.3 Brickwork is brushed down prior to drying to remove unwanted mortar.

Element 6: Clean up

Performance Criteria

- 6.1 Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations and job specifications.
- 6.2 Plant, tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturers' recommendations and standard work practices.

Registration Data

Subfield:	General Construction
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